

Indian Pipe

By **A. J. Hruska**, Gerald, Saskatchewan

Almost overnight in the last week of July or early in August a little plant makes its appearance and quickly grows and flowers in moist shady woods. This plant, *Monotropa uniflora* L., is commonly called the Indian Pipe or Corpse Plant. It is never found in abundance in Saskatchewan but according to some botanists it is a plant of common occurrence in much of North America.

This plant is curious in several aspects and I like to think of it as a hidden beauty of nature. The plant is waxy and nearly pure white for it lacks chlorophyll. It grows about 4 to 8 inches in height. The stems grow singly or in clumps. There are no leaves but are small white bract-like scales attached alternately along the stem.

The drooping bell-shaped flower has several white sepals and five white petals. When the innumerable small seeds start forming the stem straightens up and the rounded capsule is borne erect at the top of the stem. After fertilization the plant begins to take on a rich brown color. If the white plant is picked or dried before it ripens it quickly turns black.

This unusual plant is sometimes referred to as being rather unpleasant and clammy to the touch. Its curious appearance is explained by the fact that it cannot make its own food as do the green plants. Plants that are not green are either saprophytes, getting their food from the dead organic material in the soil, or they are parasites, feeding directly on living plants or animals. Most saprophytes and parasites are bacteria or fungi, but in several different families of the flowering plants there are a few species which have lost the ability to make their own food. The Indian Pipe is a good example of such a non-green plant belonging to a group whose other members are immediately recognized as flowering plants—for example, the winter-greens and heaths (azalea, laurel, rhododendron).

Most botanists classify the Indian Pipe as a parasite and saprophyte. Latest studies, however, seem to abandon the former tag and class the plant as a symbiote. That is to

say, there may be a fungus associated with the roots of this plant decomposing organic material for its use. My personal experience of the plant leads me to think that it is not a parasite.

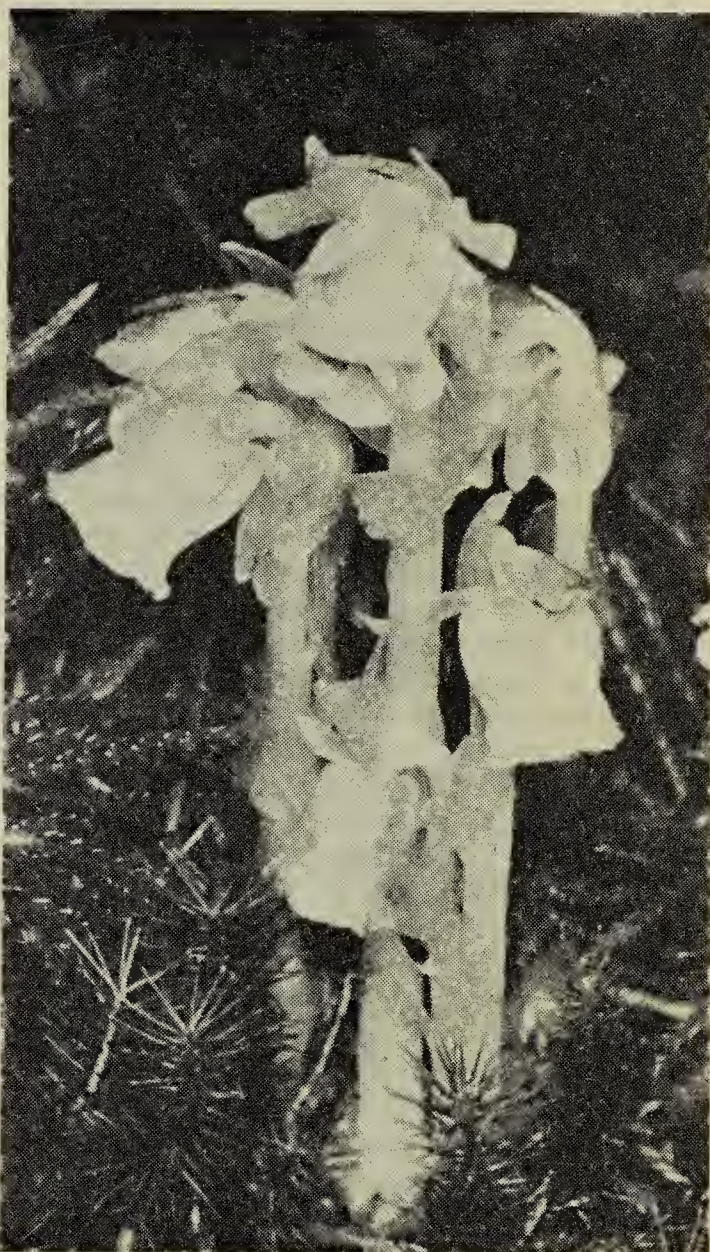


Photo by J. A. Herrick

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Orchids of the Cypress Hills

By **B. de Vries**, Fort Qu'Appelle, Saskatchewan

There are 14 species and 2 varieties of the Orchid Family listed for the Cypress Hills area. While I was there last June, I was fortunate enough to find 7 different orchids. The outstanding orchid was the rare *Calypso bulbosa* (L.) Oakes, commonly called Venus' Slipper. This exceed-

ingly delicate plant, 5 to 6 inches high grows in pine woods. Each spring it sprouts from a nearly globose corm, hence the name "bulbosa." The word Calypso is derived from the Greek Goddess Calypso, who was the Goddess of Eternal Life and Beauty. The plant bears a single leaf which has a rounded-ovate blade, acute at the apex and rounded at the base. The flower is pink; the petals and sepals are similar and each bears three purple lines. The lip is large and has a tuft of yellow hairs.

In the area I found two species belonging to the coral-root genus. This group of orchids contains saprophytes. They do not possess chlorophyll but feed entirely on dead and decaying organic matter. The plants are leafless and have a scaly, colored stem arising from thick coralloid roots. The flowers are in terminal spikes with nearly equal sepals, the lateral ones united with the foot of the column, forming a short spur. In this genus, *Corallorhiza*, I found two species, the large coral-root and the striped coral-root, and what I believe to be an additional variety—the yellow form of the striped coral-root.

Corallorhiza maculata Raf., the large coral-root, grows quite tall, measuring up to 20 inches in height. The stem is purple and covered with scales. The 10 to 30 flowers are racemous, brownish-purple with a white lip, the latter spotted and lined with red-purple markings.

Corallorhiza striata Lindl., the striped coral-root, is also a tall growing species with a stout stem. The flowers, also racemous and numbering up to 25, are purple with dark veins. These wax-like plants were found in scattered locations in aspen woods throughout the area. The yel-

low form of *Corallorhiza striata* (*C. ochroleuca* Rydb.) was found only once in a moist, shady part of an aspen grove. This species has been collected at Elkwater Lake, Alberta, by R. G. H. Cormack. The flowers are light yellow and unspotted and have a prominent mid-vein on the sepals and petals.

From the genus *Habenaria*, I found *H. obtusata* (Pursh) Richardson. This small northern bog orchid was found in a boggy spot in a spruce forest. It is a slender plant, about 10 inches in height with no stem leaves. There is one solitary obovate leaf at the base of the plant. The loosely flowered spike bears small greenish flowers with slightly curved spurs.

The other species in the genus *Habenaria* that I found was *H. bracteata* (Willd.) R. Br., the long-bracted orchid. As the name indicates the lower bracts are longer than the greenish flowers. These bracts are very conspicuous. The lip is three-toothed at the apex, the middle tooth being the smallest. It grows in moist meadows and open woods. I found this one in such a meadow near the lower lake at the park.

Finally there was the delicate round-leaved orchid, *Orchis rotundifolia* Pursh. This plant is about 10 inches high. It carries about six rose colored flowers in its terminal spike. The lip is white with small purple spots. This prominent petal is three-lobed with the large middle lobe notched at the apex. The spur is slender and curved. Near the base of the plant is a solitary leaf, orbicular or oval in form. It grows in cold, damp woods and I found it in a deep spruce coulee which was quite moist in places because of numerous small springs.

What Is Tuckahoe?

By Joyce Dew, Saskatchewan Museum of Natural History

"Tuckahoe" is of special interest to the biologist, ethnologist, and to the farmer who turns it out of the soil while doing fresh breaking. Through usage the term has come to be applied to a variety of underground growths. One of these, *Polyporous tuberaster*, described by T. C. Van-

terpool in Vol. X, No. 1 (1952) of the *Blue Jay* is the sclerotium or resting stage of a fungus. This sclerotium is described as being spherical to oval and occasionally slightly flattened, of a hard rubbery consistency when fresh, but of stone-like hardness when dried. The specimens